

Amendments to the Specification:

Please replace paragraph [0006] beginning at page 3, line 12, with the following amended paragraph:

[0006] In accordance with the present invention, there is provided a pressure control system for controlling the pressure of a process fluid stream at a certain location, comprising: (a) a pressure regulator mounted downstream of an upstream process fluid line, the regulator having a closure member movable between open and closed positions for controlling process fluid flow through the fluid line, and a control chamber for housing an actuator fluid for acting on the closure member, wherein the position of the closure member changes in response to changes in the pressure of the actuator fluid housed in the control chamber; (b) an inspirator having an inlet, an outlet, and a throat between the inlet and outlet, the control chamber of the regulator being in flow communication with the throat of the inspirator; (c) a primary pilot valve, including a sense port for receiving a sensed fluid pressure of the process fluid stream, a first target port for inputting a first target pressure, an inlet port for the actuator fluid in fluid communication with the outlet of the inspirator, an outlet port, and a primary valve member controlling the flow of actuator fluid between the inlet and outlet ports thereof and exiting the outlet of the inspirator, a first target pressure chamber in fluid communication with the target port and a sensed pressure chamber in fluid communication with the sense port, and a mechanism configured to move the primary valve member in response to a pressure differential between the target and sensed pressure chambers, wherein the sensed pressure chamber is in fluid communication with a sensing point along the process fluid line at which the pressure of the process fluid is to be controlled; (d) a secondary pilot valve, including an inlet port connectible to a supply of the actuator fluid, an outlet port, a sense port connected to the outlet port, and a second target port for inputting a second target pressure, a secondary valve member mounted for

controlling the supply of actuator fluid to the inspirator inlet by controlling the flow of the actuator fluid between the inlet and the outlet ports thereof a target pressure chamber and a sensed pressure chamber, in fluid communication with the second target port and the sense port thereof, and a mechanism configured to move the secondary valve member in response to a pressure differential between the target and sensed pressure chambers; and (e) a target pressure source in fluid communication with the target ports and the target pressure chambers of the primary pilot valve and the secondary pilot valve and adjustable to select a desired pressure to be maintained at the sensing point in the process fluid stream.

Please replace paragraph [0103] beginning at page 5, line 15, with the following amended paragraph:

[0103] The pressure regulator 112 is mounted in a process fluid line 102 to adjustably control the rate of flow of a fluid through the line 102. More particularly, the regulator 112 has an inlet port 120a in fluid communication with an upstream line 102a of the process fluid line 102, and an outlet port 120b in fluid communication with a downstream line 102b of the process fluid line 102. As best seen in Figure 3, the regulator 112 is further provided with a flow channel 122 extending between the inlet and outlet ports ~~402a~~120a, ~~402b~~120b and with a closure means 124 in the flow channel 122. The closure means 124 is variably adjustable between a fully closed position, in which the ports ~~402a~~120a and ~~402b~~120b are fluidly isolated from each other, and a fully open position in which a maximum rate of flow is permitted through the flow channel 122.

Please replace paragraph [0110] beginning at page 7, line 21, with the following amended paragraph:

[0110] The control portion 150 of the primary pilot 116 adjusts the position of the valve member 158 of the primary pilot 116. The control portion 150 has a target pressure chamber 160 and a sensed pressure chamber 162 that are separated from

each other by a primary pilot diaphragm 164. The primary pilot diaphragm 164 has a target pressure face 165a exposed to the target pressure chamber 160, and a sensed pressure face 165b exposed to the sensed pressure chamber 162. A pressure adjustment spring 163 is housed within the target pressure chamber and exerts a force against the target pressure face 165a of the diaphragm 164, as does any fluid pressure in the target pressure chamber 160. By changing the relative pressures in the target and sensed pressure chambers 160, 162, the diaphragm 164 is moved towards one of the chamber 160, 162 dependent on the pressure differential and the load set on the spring 163, which can be adjustable. The valve member 158 is connected to the diaphragm 164 by, for example, a shaft 166 and a lever 168 pivotally mounted as shown, forming a mechanism, so that movement of the diaphragm 164 adjusts the position of the valve member 158. More particularly, a downward movement of the diaphragm 164 (movement towards the sensed pressure chamber 162) closes the valve member 158, and upward movement of the diaphragm 164 (towards the target pressure chamber 160) opens the valve member 158. In the embodiment illustrated, the spring 163 is relatively soft and the surface area of the faces 165a and 165b of the diaphragm 164 are relatively large so that the diaphragm 164 has greater sensitivity to small pressure differentials across the diaphragm 164.

Please replace paragraph [0119] beginning at page 10, line 9, with the following amended paragraph:

[0119] The control portion 190 of the secondary pilot 118 adjusts the position of the valve member 198 of the secondary pilot 118. The control portion 190 has a target pressure chamber 200 and a sensed pressure chamber 202 that are separated from each other by a secondary pilot diaphragm 204. The secondary pilot diaphragm 204 has a target pressure face 205a exposed to the target pressure chamber 200, and a sensed pressure face 205b exposed to the sensed pressure chamber 202. A pressure adjustment spring 203 is housed within the target pressure chamber 200 and exerts a force against the target pressure face 205a of the diaphragm 204, as does any fluid pressure in the target pressure chamber 200. The force of the spring 203 can be

adjusted by turning an adjustment screw 207 to change the preload on the spring 203. By changing the relative pressures in the target and sensed pressure chambers 200, 202, the diaphragm 204 is moved towards the chamber 200, 202 with the reduced pressure. The valve member 198 can be connected to the diaphragm 204 by a suitable mechanism, for example, a shaft 206, so that movement of the diaphragm 204 adjusts the portion of the valve member 198. In the embodiment illustrated, the spring 203 is relatively stiff and the surface area of the faces 205a and 205b of the diaphragm 204 are relatively small (compared to those of the primary pilot 116).

Please replace paragraph [0127] beginning at page 12, line 31, with the following amended paragraph:

[0127] Figure 4-8 shows test results when the present pressure control system is employed in a fuel cell system. As can be seen, although the process gas flow changes dramatically from near zero slpm to 200 slpm, the pressure of the process fluid at a certain point in the system is maintained at reasonably constant level.